AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1   1. (Currently amended) A method to facilitate debugging computer code
2   within an operating system kernel, comprising:
3   receiving ~~a~~ an operating system source file containing a data structure
4   definition, wherein the operating system source file contains a plurality of data
5   structures, and wherein the operating system source file is part of an operating
6   system kernel;
7   searching the operating system source file for the data structure definition;
8   upon finding the data structure definition, saving the data structure
9   definition in a storage structure;
10   automatically generating a new operating system source code to display a
11   data structure through execution of a source generator program, wherein the new
12   operating system source code is created using the data structure definition,
13   wherein automatically generating the new operating system source code includes
14   automatically generating source code to walk a linked list of data structures, and
15   wherein generating the new operating system source code involves:
16   examining the plurality of ~~data structures~~ structure
17   definitions in the storage structure to locate a cross-reference
18   between data structures, and
19   generating the new operating system source code for the
20   plurality of data structures;

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21   compiling the new <u>operating system</u> source code into an executable

22   module;

23   installing the executable module into a modular debugger; and

24   during execution of the modular debugger, displaying a content of the data

25   structure to a user of the modular debugger using the executable module, whereby

26   the user is able to view the content of the data structure.

1   2. (Currently amended) The method of claim 1, wherein receiving the

2   <u>operating system</u> source file includes receiving a plurality of <u>operating system</u>

3   source files.

1   3 (Canceled).

1   4. (Previously presented) The method of claim 1, wherein saving the data

2   structure definition in the storage structure includes saving the plurality of data

3   structures in the storage structure.

1   5-6 (Canceled).

1   7. (Previously presented) The method of claim 1, wherein displaying the

2   content of the data structure includes displaying the content of the linked list of

3   data structures.

1   8. (Original) The method of claim 1, wherein the data structure definition

2   includes one of a tree, a linked list, a doubly linked list, and a queue.

1   9. (Currently amended) A computer-readable storage medium storing

2   instructions that when executed by a computer cause the computer to perform a

3 method to facilitate debugging computer code within an operating system kernel,

4 the method comprising:

5   receiving-a an operating system source file containing a data structure

6 definition, wherein the operating system source file contains a plurality of data

7 structures, and wherein the operating system source file is part of an operating

8 system kernel;

9   searching the operating system source file for the data structure definition;

10   upon finding the data structure definition, saving the data structure

11 definition in a storage structure;

12   automatically generating a new operating system source code to display a

13 data structure through execution of a source generator program, wherein the new

14 operating system source code is created using the data structure definition,

15 wherein automatically generating the new operating system source code includes

16 automatically generating source code to walk a linked list of data structures, and

17 wherein generating the new operating system source code involves:

18   examining the plurality of data-structures structure

19   definitions in the storage structure to locate a cross-reference

20   between data structures, and

21   generating the new operating system source code for the

22   plurality of data structures;

23   compiling the new operating system source code into an executable

24 module;

25   installing the executable module into a modular debugger; and

26   during execution of the modular debugger, displaying a content of the data

27 structure to a user of the modular debugger using the executable module, whereby

28 the user is able to view the content of the data structure.

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1 10. (Currently amended) The computer-readable storage medium of claim
2 9, wherein receiving the <u>operating system</u> source file includes receiving a plurality
3 of <u>operating system</u> source files.

1 11 (Canceled).

1 12. (Previously presented) The computer-readable storage medium of
2 claim 9, wherein saving the data structure definition in the storage structure
3 includes saving the plurality of data structures in the storage structure.

1 13-14 (Canceled).

1 15. (Previously presented) The computer-readable storage medium of
2 claim 9, wherein displaying the content of the data structure includes displaying
3 the content of the linked list of data structures.

1 16. (Original) The computer-readable storage medium of claim 9, wherein
2 the data structure definition includes one of a tree, a linked list, a doubly linked
3 list, and a queue.

1 17. (Currently amended) An apparatus to facilitate debugging computer
2 code within an operating system kernel, comprising:
3 a receiving mechanism that is configured to receive ~~a~~ <u>an operating system</u>
4 source file containing a data structure definition<u>, wherein the operating system</u>
5 <u>source file contains a plurality of data structures, and wherein the operating</u>
6 <u>system source file is part of an operating system kernel</u>;

7   a search mechanism that is configured to search the operating system

8   source file for the data structure definition, wherein the search mechanism is

9   further configured to search the source file for a plurality of data structures;

10   a saving mechanism that is configured to save the data structure definition

11   in a storage structure;

12   an automatic code generating mechanism that is configured to

13   automatically generate a new operating system source code to display a data

14   structure through execution of a source generator program, wherein the new

15   operating system source code is created using the data structure definition;

16   wherein the automatic code generating mechanism is further configured to

17   automatically generate source code to walk a linked list of data structures;

18   an examining mechanism that is configured to examine the plurality of

19   data structures structure definitions in the storage structure to locate a cross-

20   reference between data structures;

21   wherein the generating mechanism is further configured to generate the

22   new operating system source code for the plurality of data structures;

23   a compiling mechanism that is configured to compile the new operating

24   system source code into an executable module;

25   an installing mechanism that is configured to install the executable module

26   into a modular debugger; and

27   a displaying mechanism that is configured to display a content of the data

28   structure to a user of the modular debugger using the executable module, whereby

29   the user is able to view the content of the data structure.

1   18. (Currently amended) The apparatus of claim 17, wherein the receiving

2   mechanism is further configured to receive a plurality of operating system source

3   files.

1   19 (Canceled).

1   20. (Previously presented) The apparatus of claim 17, wherein the saving

2 mechanism is further configured to save the plurality of data structures in the

3 storage structure.

1   21-22 (Canceled).

1   23. (Previously presented) The apparatus of claim 17, wherein the

2 displaying mechanism is further configured to display the content of the linked list

3 of data structures.

1   24. (Original) The apparatus of claim 17, wherein the data structure

2 definition includes one of a tree, a linked list, a doubly linked list, and a queue.